
From: Roy McDaniel
Sent: Monday, May 15, 2017 1:30 PM
To: David Hansen <dfhansen@utah.gov>
Cc: Benson Dean Palmer <bdp@ldschurch.org>; Scott Marvin Larson <Scott.Larson@ldschurch.org>
Subject: RE: 2017 Sanitary Survey Reports, Rush Valley LDS Church (Sys. #23043), Dugway Ward Water System (Sys. #23065)

David,

Here is our reply to the first question:

We have not been performing ongoing monitoring for the iron and manganese removal at the Dugway and Rush Valley meetinghouses since the installation treatment systems. The first is that we have not been required to provide additional monitoring by the Director. R309-215-6 states

"The Director may require additional monitoring as necessary to evaluate the treatment process and to ensure the quality of the water. The specific analytes, frequency of the monitoring, the reporting frequency and the sampling location for which monitoring may be required shall be determined by the following:

- a. The contaminant of concern for which the treatment process has been installed;
- b. The process control samples required to operate treatment process being used; and
- c. Alternative surrogate sampling when it is either quicker or less expensive and still provides the necessary information."

The main reason we installed the iron and manganese filters was for aesthetic reasons to eliminate staining caused by iron and manganese in the water. The installation was something the Church instigated, and was not required by the Division of Drinking Water or an MCL exceedance. Additionally, iron and manganese are secondary contaminants, and only have guideline limits.

Very little water is used at LDS meetinghouses for drinking. Most water is used for flushing toilets, washing hands, and mopping the floors. When the iron levels are high, we see it on the porcelain and in staining. This is in effect the "surrogate sampling" that R309-215-6(c) discusses. In other words, we are monitoring the effectiveness of the treatment through by watching for the effects that high iron and manganese would cause. We are comfortable with this since there are no adverse health effects if the iron and manganese levels are high.

If there are other parts of the administrative code that require us to perform ongoing sampling in addition to the monitoring we are performing, please let us know.

The Carbon block filter is NSF 42 certified (for aesthetic effects), as are most filters of this type, but not NSF 61. NSF 42 still meets the requirements that the materials are safe to use in the water system, and that they won't leach dangerous materials. Most of the water treatment units that are appropriate for the scale that we use at church's meet

either the NSF 42 or NSF 53 standards because they are made for residential applications. We have been able to get these approved by the DDW in the past.

I'm waiting for the spec sheet that shows that it is NSF approved. The other filter apparently was not NSF approved, and Benson Palmer has already ordered replacement filters that are NSF approved to replace them.

Please let me know if you have any other questions, or need any more information. I'll send you the spec sheet when I get it.

Sincerely,

Roy McDaniel, P.E. | Water Resources Manager

NATURAL RESOURCES SECTION - SPECIAL PROJECTS DEPARTMENT

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS | CORP. OF PRESIDING BISHOP

50 East North Temple Street, 12th Floor | Salt Lake City, UT 84150-0012

Phone: 801-240-4656 | Cell: 801-718-6777 | E-mail: mcdanielrb@ldschurch.org

<https://secure.utah.gov/llv/search/index.html>

▼ Licensee Name	City	Profession	License #	▼ Status
ROY BENSON MCDANIEL	RIVERTON	ENGINEER/LAND SURVEYOR PROFESSIONAL ENGINEER	323921-2202	ACTIVE

Details for Roy Benson McDaniel

License Information

Name:	Roy Benson McDaniel
City, State, Zip, Country:	Riverton UT 84065 United States
Profession:	Engineer/Land Surveyor
License Type:	Professional Engineer
License Number:	323921-2202
Obtained By:	Unknown
License Status:	Active
Original Issue Date:	12/05/2003
Expiration Date:	03/31/2021
Agency and Disciplinary Action*:	NO DISCIPLINARY ACTIONS OR NO DISCIPLINARY ACTIONS WITHIN THE TIME FRAME ESTABLISHED IN UTAH CODE 63G-4-106 AND 107
Docket Number:	N/A

Education:

School Name	Major	Graduation Date	Degree
BRIGHAM YOUNG UNIVERSITY	Civil Engineering	1996-08-01	Bachelor of Science
BRIGHAM YOUNG UNIVERSITY	Civil Engineering	1997-12-01	Master of Science